



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Steven Tysoe et al.

Serial No.: 10/672,623

Filed: September 26, 2003

For: SOFT MAGNETIC PARTICLES
METHODS OF MAKING AND
ARTICLES FORMED
THEREFROM

§ Group Art Unit: 1773
§ Examiner: Le, Hoa T.
§ Atty. Docket: 134763-1/YOD
§ GERD:0381
§

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July 31, 2007

Date

Lynda Howell

REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41

The present Reply Brief is in response to the Examiner's Answer mailed on June 21, 2007. Appellants respectfully request that the Board consider Appellants' complete arguments set forth in the previously filed Appeal Brief along with the following remarks.

A flat shape does not anticipate an elongated shape.

Appellants respectfully urge the Board to review and reverse the Examiner's sole ground of rejection of claims 1 and 25 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,940,388 ("Moro"). The Examiner maintains that the flat shape of the soft magnetic material disclosed in Moro anticipates the elongated shape required by

claims 1 and 25. *See* Examiner's Answer, pages 4-5. Specifically, the Examiner argues that Moro teaches an elongated shape because "Moro discloses a flat shape having an aspect ratio of 5 to 25, which ratio clearly defines an elongated shape." *Id.*, page 4. The Examiner's interpretation of the Moro reference is flawed. Moro defines "aspect ratio" as the "ratio of flattening." Moro, col. 3, lines 41-43. Appellants interpret this definition to mean that the shape described in Moro has a thickness 5 to 25 times less than its diameter. Clearly, any object with a thickness significantly smaller than its diameter would be considered flat (e.g., a coin). The elongated shape specified in claims 1 and 25 is fundamentally different than the flat shape disclosed in Moro.

Appellants believe that the Examiner intended to imply that an elongated object, such as the claimed particles, could also be flat. That is obviously correct. Rolled flat stock is, for example, elongated *and* flat. However, objects that are flat (as in the case of the Moro particles) are not necessarily elongated. Again, a coin is a simple example.

The point to be considered by the Board is that Moro discloses a *flat* shape, and *not an elongated shape*. Clearly, the issue is not whether the claimed elongated shape *could be flat*, but whether Moro teaches elongated particles. It does not. That being the case, Moro does not support the rejection.

Disclosing 0.3 to 5.0 weight percent does not anticipate the weight percent ranges claimed.

The Examiner contends that Moro discloses an amount of insulating material from about 0.05 weight percent to about 1.0 weight percent (claim 1), or apparently also to about 0.15 weight percent (claims 3, 25 and 31) because the reference *refers to an amount less than 0.3 weight percent to be undesirable*. Moro specifically discloses a range from 0.3 to 5.0 weight percent, significantly greater than the 0.05 to 0.15 weight percent claimed. *See*, Moro, col. 5, lines 10-22.

For the first time in the prosecution history of the application, in preparation of the Examiner's Answer, the Examiner has scoured the Moro disclosure for any indication that the claimed range is even close to that taught by Moro. By various calculations, the Examiner would conclude that Moro ultimately may teach a range as low as 1.09 weight percent. Clearly, that still does not anticipate the range recited in claim 1, and is still nearly an order of magnitude greater than the ranges recited in claims 3, 25 and 31. There is simply no precedent or reasonable basis for upholding an anticipation rejection when the reference simply does not teach the claimed range, as the Examiner himself has aptly demonstrated of Moro in the Answer.

Also for the first time in the Examiner's Answer has the Examiner advanced a contorted reading of Moro based upon a newly cited article by Ryu. *See*, Examiner's Answer, page 3 (discussing the lower 0.05 to 0.15 weight percent range of claim 25). Appellants would ask the Board to reject this belated attempt to simply re-write the plain teachings of Moro. The reference simply does not teach the low ranges recited in the claims.

The Examiner would misapply precedent in which it has been held that, *if taught*, ranges not favored in the prior art could nevertheless anticipate later claims to those taught, but unfavored ranges. That is not the case here. The Examiner's use of a passage from Moro is tantamount to reading Moro as teaching that "any weight percent" could be utilized. Moro makes no such assertion. It does specifically teach one range, much higher than that claimed. The Examiner cannot reasonably read the passage as *teaching* 0.05 to about 1.0 or to about 0.15 weight percent any more than a range of 0 to 100 weight percent. The Examiner's reading of the reference is unreasonable and the application of precedent is erroneous.

In addition, even if Moro did disclose an amount of insulating material less than 0.3 weight percent, that disclosure would not be specific enough to anticipate the claimed range of 0.05 to about 1.0 or to about 0.15 weight percent. “If the claims are directed to a narrow range, and the reference teaches a broad range, depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with ‘sufficient specificity’ to constitute an anticipation of the claims.” M.P.E.P. 2131.03 (citing *Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 999, 78 USPQ2d 1417, 1423 (Fed. Cir. 2006)). In this case, Moro discloses ranges that do not even overlap with the range of claim 1, and that do not even approach those of claims 3, 25 and 31. Therefore, the claimed ranges cannot be anticipated by Moro.

The Board should consider the shape and composition recitations synergistically.

Appellants urge the Board to consider the recitations discussed above together and not as isolated, esoteric distinctions. It is believed that improved materials are achieved through the invention both because the particles are elongated and because less insulating material is used. Indeed, the elongated shape of the particles and the reduction in insulating material (less than half that taught by Moro) work together to minimize core loss while maximizing magnetic permeability. *See*, Application, paragraph 27. The two distinctions, in fact, enable one another and enhance their respective effects on the resulting structures.

Conclusion

For these reasons, the Appellants respectfully request that the Board overturn the pending Section 102 rejection and allow all pending claims.

Respectfully submitted,

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